

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

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1. (original): An inter-image operation method comprising the steps of carrying out an inter-image operation between two or more sets of base image data each representing a distinct base image of an identical object to obtain processed image data therefrom, and recording history data on past inter-image operations.

a' 2. (original): An inter-image operation method according to claim 1, wherein the history data on the past inter-image operations are recorded in a designated recording medium.

3. (original): An inter-image operation method according to claim 1, wherein the history data on the past inter-image operations are attached to the processed image data obtained through the inter-image operation.

4. (original): An inter-image operation method according to claim 1, wherein the history data on the past inter-image operations are attached to each of said two or more sets of the base image data used for calculating the processed image data.

5. (original): An inter-image operation method according to claim 1, wherein the history data on the past inter-image operations include information identifying the base images each represented by one of said two or more sets of the base image data used for calculating the processed image data.

6. (original): An inter-image operation method according to claim 5, wherein the history data on the past inter-image operations are recorded in a designated recording medium.

a1 7. (original): An inter-image operation method according to claim 5, wherein the history data on the past inter-image operations are attached to the processed image data obtained through the inter-image operation.

8. (original): An inter-image operation method according to claim 5, wherein the history data on the past inter-image operations are attached to each of said two or more sets of the base image data used for calculating the processed image data.

9. (original): An inter-image operation method according to claim 1, wherein the history data on the past inter-image operations include such data indicating whether or not the processed image data on a certain processed image have already been obtained.

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10. (original): An inter-image operation method according to claim 9, wherein the history data on the past inter-image operations are recorded in a designated recording medium.

11. (original): An inter-image operation method according to claim 9, wherein the history data on the past inter-image operations are attached to the processed image data obtained through the inter-image operation.

a' 12. (original): An inter-image operation method according to claim 9, wherein the history data on the past inter-image operations are attached to each of said two or more sets of the base image data used for calculating the processed image data.

13. (original): An inter-image operation method according to claim 9, wherein the history data on the past inter-image operations include information on recording sites of the processed image data obtained in the past, and wherein a desired set of the processed image data stored at the recording site thereof is fetched and outputted instead of conducting the inter-image operation to recalculate the desired set of the processed image data, if it was found by referring to the history data that the desired set of processed image data had already been obtained.

14. (original): An inter-image operation method according to claim 13, wherein the history data on the past inter-image operations are recorded in a designated recording medium.

15. (original): An inter-image operation method according to claim 13, wherein the history data on the past inter-image operations are attached to the processed image data obtained through the inter-image operation.

a1 16. (original): An inter-image operation method according to claim 13, wherein the history data on the past inter-image operations are attached to each of said two or more sets of the base image data used for calculating the processed image data.

17. (original): An inter-image operation method according to claim 5, wherein the history data on the past inter-image operations include such data indicating whether or not the processed image data on a certain processed image have already been obtained.

18. (original): An inter-image operation method according to claim 17, wherein the history data on the past inter-image operations are recorded in a designated recording medium.

19. (original): An inter-image operation method according to claim 17, wherein the history data on the past inter-image operations are attached to the processed image data obtained through the inter-image operation.

20. (original): An inter-image operation method according to claim 17, wherein the history data on the past inter-image operations are attached to each of said two or more sets of the base image data used for calculating the processed image data.

a' 21. (original): An inter-image operation method according to claim 17, wherein the history data on the past inter-image operations include information on recording sites of the processed image data obtained in the past, and wherein a desired set of the processed image data stored at the recording site thereof is fetched and outputted instead of conducting the inter-image operation to recalculate the desired set of the processed image data, if it was found by referring to the history data that the desired set of processed image data had already been obtained.

22. (original): An inter-image operation method according to claim 21, wherein the history data on the past inter-image operations are recorded in a designated recording medium.

23. (original): An inter-image operation method according to claim 21, wherein the history data on the past inter-image operations are attached to the processed image data obtained through the inter-image operation.

24. (original): An inter-image operation method according to claim 21, wherein the history data on the past inter-image operations are attached to each of said two or more sets of the base image data used for calculating the processed image data.

25. (original): An inter-image operation method according to any one of claims 1-24, wherein the inter-image operation includes a subtraction operation on a pixel-by-pixel basis between said two or more sets of the base image data.

26. (original): An inter-image operation method according to any one of claims 1-24, wherein each of said two or more sets of the base image data is a set of data representing an original image.

a' 27. (original): An inter-image operation method according to any one of claims 1-24, wherein the inter-image operation includes a subtraction operation on a pixel-by-pixel basis between said two or more sets of the base image data, and wherein each of said two or more sets of the base image data is a set of data representing an original image.

28. (original): An inter-image operation method according to any one of claims 1-24, wherein the base images each represented by one of said two or more sets of the base image data are taken at different points in time.

29. (original): An inter-image operation method according to any one of claims 1-24, wherein the inter-image operation includes a subtraction operation on a pixel-by-pixel basis between said two or more sets of the base image data, and wherein the base images each

represented by one of said two or more sets of the base image data are taken at different points in time.

30. (original): An inter-image operation method according to any one of claims 1-24, wherein each of said two or more sets of the base image data represents a radiation image for medical use.

a<sup>1</sup> 31. (original): An inter-image operation method according to any one of claims 1-24, wherein the inter-image operation includes a subtraction operation on a pixel-by-pixel basis between said two or more sets of the base image data, and wherein each of said two or more sets of the base image data represents a radiation image for medical use.

32. (original): An inter-image operation apparatus comprising inter-image operation means which carries out an inter-image operation between two or more sets of base image data each representing a distinct base image of an identical object to obtain processed image data therefrom, and history data recording means for recording history data on past inter-image operations.

33. (original): An inter-image operation apparatus according to claim 32, wherein the history data recording means records the history data on the past inter-image operations in a designated recording medium.

34. (original): An inter-image operation apparatus according to claim 32, wherein the history data recording means attaches the history data on the past inter-image operations to the processed image data obtained through the inter-image operation.

a1 35. (original): An inter-image operation apparatus according to claim 32, wherein the history data recording means attaches the history data on the past inter-image operations to each of said two or more sets of the base image data used for calculating the processed image data.

36. (original): An inter-image operation apparatus according to claim 32, wherein the history data on the past inter-image operations include information identifying the base images each represented by one of said two or more sets of the base image data used for calculating the processed image data.

37. (original): An inter-image operation apparatus according to claim 36, wherein the history data recording means records the history data on the past inter-image operations in a designated recording medium.

38. (original): An inter-image operation apparatus according to claim 36, wherein the history data recording means attaches the history data on the past inter-image operations to the processed image data obtained through the inter-image operation.



39. (original): An inter-image operation apparatus according to claim 36, wherein the history data recording means attaches the history data on the past inter-image operations to each of said two or more sets of the base image data used for calculating the processed image data.

40. (original): An inter-image operation apparatus according to claim 32, wherein the history data on the past inter-image operations include such data indicating whether or not the processed image data on a certain processed image have already been obtained.

41. (original): An inter-image operation apparatus according to claim 40, wherein the history data recording means records the history data on the past inter-image operations in a designated recording medium.

42. (original): An inter-image operation apparatus according to claim 40, wherein the history data recording means attaches the history data on the past inter-image operations to the processed image data obtained through the inter-image operation.

43. (original): An inter-image operation apparatus according to claim 40, wherein the history data recording means attaches the history data on the past inter-image operations to each of said two or more sets of the base image data used for calculating the processed image data.

Q<sup>1</sup> 44. (original): An inter-image operation apparatus according to claim 40, wherein the history data on the past inter-image operations include information on recording sites of the processed image data obtained in the past, and wherein a desired set of the processed image data stored at the recording site thereof is fetched and outputted instead of conducting the inter-image operation to recalculate the desired set of the processed image data, if the inter-image operation means found by referring to the history data, that the desired set of processed image data had already been obtained.

45. (original): An inter-image operation apparatus according to claim 44, wherein the history data recording means records the history data on the past inter-image operations in a designated recording medium.

46. (original): An inter-image operation apparatus according to claim 44, wherein the history data recording means attaches the history data on the past inter-image operations to the processed image data obtained through the inter-image operation.

47. (original): An inter-image operation apparatus according to claim 44, wherein the history data recording means attaches the history data on the past inter-image operations to each of said two or more sets of the base image data used for calculating the processed image data.

48. (original): An inter-image operation apparatus according to claim 36, wherein the history data on the past inter-image operations include such data indicating whether or not the processed image data on a certain processed image have already been obtained.

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49. (original): An inter-image operation apparatus according to claim 48, wherein the history data recording means records the history data on the past inter-image operations in a designated recording medium.

50. (original): An inter-image operation apparatus according to claim 48, wherein the history data recording means attaches the history data on the past inter-image operations to the processed image data obtained through the inter-image operation.

51. (original): An inter-image operation apparatus according to claim 48, wherein the history data recording means attaches the history data on the past inter-image operations to each of said two or more sets of the base image data used for calculating the processed image data.

52. (original): An inter-image operation apparatus according to claim 48, wherein the history data on the past inter-image operations include information on recording sites of the processed image data obtained in the past, and wherein a desired set of the processed image data stored at the recording site thereof is fetched and outputted instead of conducting the inter-image operation to recalculate the desired set of the processed image data, if the inter-image operation

means found by referring to the history data that the desired set of processed image data had already been obtained.

a) 53. (original): An inter-image operation apparatus according to claim 52, wherein the history data recording means records the history data on the past inter-image operations in a designated recording medium.

54. (original): An inter-image operation apparatus according to claim 52, wherein the history data recording means attaches the history data on the past inter-image operations to the processed image data obtained through the inter-image operation.

55. (original): An inter-image operation apparatus according to claim 52, wherein the history data recording means attaches the history data on the past inter-image operations to each of said two or more sets of the base image data used for calculating the processed image data.

56. (original): An inter-image operation apparatus according to any one of claims 32-55, wherein the inter-image operation includes a subtraction operation on a pixel-by-pixel basis between said two or more sets of the base image data.

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57. (original): An inter-image operation apparatus according to any one of claims 32-55, wherein each of said two or more sets of the base image data is a set of data representing an original image.

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58. (original): An inter-image operation apparatus according to any one of claims 32-55, wherein the inter-image operation includes a subtraction operation on a pixel-by-pixel basis between said two or more sets of the base image data, and wherein each of said two or more sets of the base image data is a set of data representing an original image.

59. (original): An inter-image operation apparatus according to any one of claims 32-55, wherein the base images each represented by one of said two or more sets of the base image data are taken at different points in time.

60. (original): An inter-image operation apparatus according to any one of claims 32-55, wherein the inter-image operation includes a subtraction operation on a pixel-by-pixel basis between said two or more sets of the base image data, and wherein the base images each represented by one of said two or more sets of the base image data are taken at different points in time.

61. (original): An inter-image operation apparatus according to any one of claims 32-55, wherein each of said two or more sets of the base image data represents a radiation image for medical use.

a1 62. (original): An inter-image operation apparatus according to any one of claims 32-55, wherein the inter-image operation includes a subtraction operation on a pixel-by-pixel basis between said two or more sets of the base image data, and wherein each of said two or more sets of the base image data represents a radiation image for medical use.

63. (original): An image display method comprising the steps of displaying an image on a prescribed image display, said image being a processed image represented by processed image data obtained by carrying out an inter-image operation between two or more sets of base image data each representing a distinct base image of an identical object, and displaying information identifying the two or more base images each represented by one of said two or more sets of the base image data together with the processed image.

64. (original): An image display apparatus comprising means for displaying an image on a prescribed image display, said image being a processed image represented by processed image data obtained by carrying out an inter-image operation between two or more sets of base image data each representing a distinct base image of an identical object, and means for displaying

information identifying the two or more base images each represented by one of said two or more sets of the base image data together with the processed image.

65 (new). The apparatus of claim 32, wherein the history data recording means comprises a database which stores the history data and the base image data.

a 66 (new). The apparatus of claim 32, wherein the history data comprises at least one of: data indicating whether or not inter-image operations of the base image data have been carried out, names for the base image data, a name of a patient of corresponding base image data, a date of taking the base image data, and an ID number of the patient.

67 (new). The apparatus of claim 65 wherein the history data includes header information indicating that inter-image operation of the base image data has been carried out.

68 (new). The apparatus of claim 67, wherein the inter-image operation means searches the database by the header information to determine whether the inter-image operation has been carried out, and retrieving the inter-image operation from the database when the header information that the inter-image operation has been carried out to provide the processed image data.

69 (new). The apparatus of claim 68, wherein the inter-image operation means carries out the inter-image operation when the inter-image operation of the base image data has not been previously carried out.

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